

Work Order ID 160003***160003***

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Thursday, April 20, 2017 11:24:43 AM

Item ID: D2010-103 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Mirror Arm 369/500
Start Date: 4/20/2017 Start Qty: 3.00 ***3*** Cust Item ID:
Required Date: 5/4/2017 Req'd Qty: 3.00 ***3*** Customer:
Reference:

Approvals: Process Plan: DAS 21 Date: APR 21 2017 Tooling: _____ Date: _____ Run Start ***NR1***
QC: 9-88 Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2010	Rev D								
100	NC BRAKE	0.00							
100									
Brake NC	Memo	0.64							
Brake NC	Punch per Dwg. D2010-103-T1 and Spec Control Dwg D2727 Identify as D2010-103								
110	Small Fab	0.00							
110									
Small Fab	Memo	0.64							
Small Fab	1- Bend as per Dwg D2010 using bending Jig D2010-103T2 2- Deburr ends								
120	Small Fab	0.00							
120									
Small Fab	Memo	0.36							
Small Fab	1-flare before installing plug as per dwg D2010 2-Install D2057 plug as per Dwg D2010								

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WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.06				<u>2</u>			DAS 38 9-88 APR 21 2017
140 *140* Powdercoat Powder Coating	Black Sandtex(Ref:4.3.5.7) per QSI005 4.3 <u>M 136370</u> Memo START TIME: <u>1:35</u> FINISH TIME: <u>2:05</u>	0.00 0.12				<u>2</u>	<u>Ø 1704-26</u>	<u>234</u>	DAS 38 9-88 APR 26 2017
150 *150* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.03				<u>2</u>			DAS 38 9-88 APR 26 2017

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								Lead hand / Supervisor Approval Verification	
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Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: 8351	0.00							
160									
Packaging	Memo	0.03							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.30							
Quality Control									

DAS
21
9-89

MAY 01 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Description Work Order Deviation				Disposition					
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Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
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Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

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160003

Parent Item: D2010-103

D2010-103

Parent Item Name: Mirror Arm 369/500

Start Date: 4/20/2017

Required Date: 5/4/2017

Start Qty: 3.00

Required Qty: 3.00

Comments: IPP: F02.08.21Re-format; Added D2057 KJ/RF
IPP Rev:G 08-05-27 as per ECN1195P DD verified by:EC
IPP Rev:H 08-06-20 rev.D as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304TR0.500W.049		Purchased	No			100	f	50.6570	1.5	4.736842			
									**		FF	APR 20 2017	
M304TR0 500W 049													
304 RD Tube .500 x .049W													

Location	Loc Qty	Loc Code
GA002	50.657	
M136846	1.17	
M137091	2.92	
M137169	26.567	
M137286	20	

4.736842

D2057		Manufactured	No			110	Each	32.0000	1	3			
									**		FF	APR 20 2017	
D2057													
Plug													

Location	Loc Qty	Loc Code
GA	32	
152226	32	

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

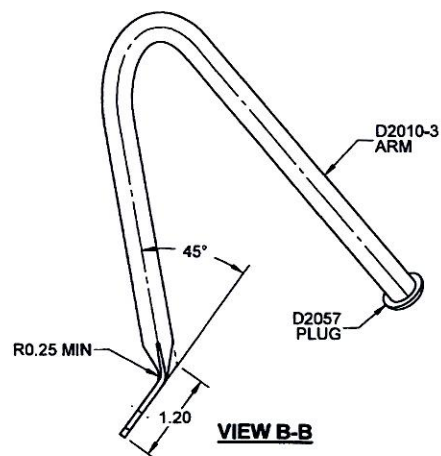
QA Closed: _____ Date: _____

Work Order update only ☐

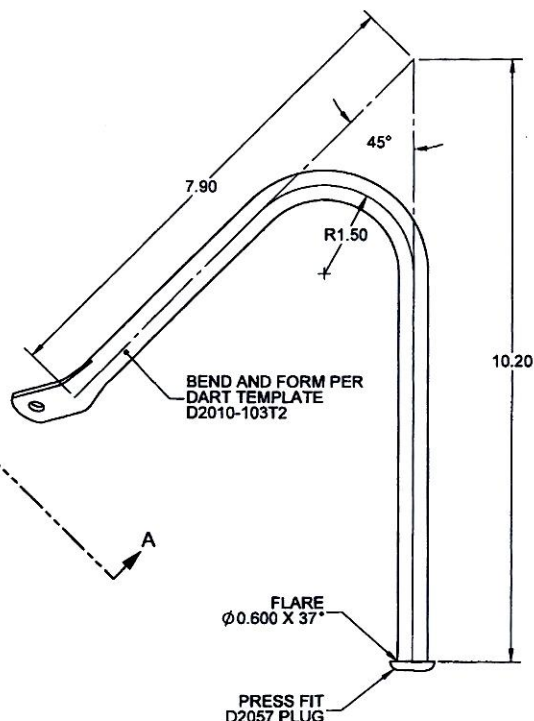
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8 7 6 5 4 3 2 1

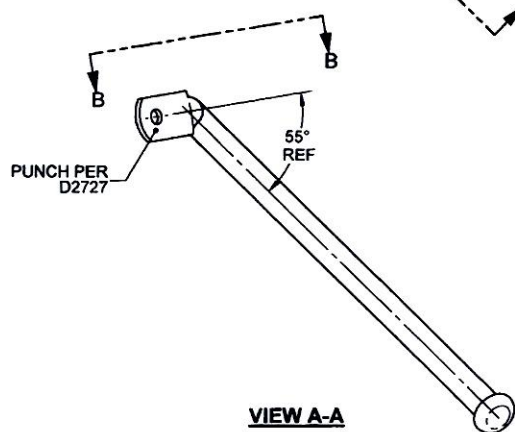
QTY -103	P/N	DESCRIPTION
X	D2010-103	ARM
1	D2010-3	ARM
1	D2057	PLUG



VIEW B-B



D2010-103 ARM



VIEW A-A

RELEASED
08 06 10

- NOTES:**
- 1) MATERIAL: D2010-3: AISI 304/316 SS SEAMLESS ROUND TUBING, Ø0.500 X 0.049 WALL (REF DART SPEC M304TR0.500W.049) **D**
 - 2) FINISH: POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2010-103" USING WHITE FINE POINT PERMANENT INK MARKER
 - 7) WEIGHT: 0.34 lbs

DESIGN	JB	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. D
MFG. APPR.	AS	D2010	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		MIRROR BRACKET	NTS
DATE	08.06.10	COPYRIGHT © 1990 BY DART AEROSPACE LTD	
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8 7 6 5 4 3 2 1